

ADDRESS

OF

EARL STANHOPE,

PRESIDENT

OF

The Medico-Botanical Society.

FOR THE

ANNIVERSARY MEETING.

JANUARY 16, 1831.

London:

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1831.

At a General Meeting of the MEDICO-BOTANICAL SOCIETY OF LONDON, holden on Wednesday, the 2d day of February, 1831,—It was moved by SIR HENRY HALFORD, Bart. F.R.S. F.S.A. President of the Royal College of Physicians, Grand Cross of the Guelphic Order, and Vice-President of this Society, and seconded by the REV. JOHN ALINGTON,

AND RESOLVED UNANIMOUSLY,

THAT the warmest expressions of gratitude, the most sincere thanks of the Society, be offered to our noble President, for his comprehensive Address; and that to enable the Members to profit fully by the advice contained in it, his Lordship be requested to allow the same to be printed for the use of the Society.

HUMPHREY GIBBS, }
GEORGE G. SIGMOND, } *Secretaries.*

London, February 2d, 1831.

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PRESIDENT
OF
THE MEDICO-BOTANICAL SOCIETY,
FOR THE
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January 16th, 1831.

GENTLEMEN,

THE high and distinguished honor which you have been pleased to confer upon me in again electing me as your President, affords a most gratifying testimonial of your confidence and kindness which I shall ever be anxious to deserve. It is indeed a favor of which I have just reason to be proud, that through your partiality I am allowed to preside over a Society, the pursuits of which are most important in themselves, and may be most beneficial to mankind. Although I cannot pretend to be worthy of that favor, I am, however, much flattered by receiving it, and your kindness, which I have always experienced, will, I trust, support me in the discharge of my duties, and induce you to view with indulgence the imperfections of which I am conscious. Permit me to offer you my warmest and most grateful thanks, and to assure you that my humble

services, feeble and unprofitable as they may be, will continue to be employed with assiduity and zeal in promoting the welfare of this Society, and in advancing, as far as I am able, its laudable and benevolent designs,

Since the last Anniversary various improvements have taken place ; amongst others, a Professorship of Chemistry has been established, and we have now the happiness of seeing that situation occupied by a Gentleman whose experience is as extensive as his scientific attainments. It would indeed be superfluous for me on this, or on any other occasion, to expatiate upon the extreme utility and importance of that science, and upon its immediate connexion with the pursuits of this Society ; but I may, however, observe, that the preparation, according to pharmaceutical practice of medicinal substances, is not less valuable than a knowledge of their virtues, and is indispensable to their employment. In preserving, and sometimes in extracting the essential qualities of a drug, in ascertaining the forms in which it should be exhibited, the substances with which it may be compounded, or those by which it would be decomposed, the effects which various affinities may produce upon it, and the manner in which its agency may be increased or diminished, Chemistry is absolutely requisite, and should also be employed for investigating, as far as may be in its power, the properties of those vegetables with which we are altogether unacquainted, or of which we have only an inadequate knowledge. I look forward, with eager anticipation, to the period when the resources of this Society would enable it to establish a Laboratory, in which, by a careful analysis, many interesting and important discoveries might be made, and the knowledge of the constituent principles of vege-

tables might be enlarged and perfected. In order that we may learn the virtues of many plants, which are now neglected or despised, we should endeavour to discover the real nature and properties of those substances which are found in them, and of which some, like *Aconitina*, *Esculina*, and others, are, as Dr. de Montmahou informs us, either not employed in Medicine, or not sufficiently known.

Is it to be supposed that those Vegetables are quite insignificant and useless which do not attract our attention by their sensible qualities, and which do not appear to be active in their medicinal effects? If I could presume to offer any opinion upon such a subject, I would remark, that the efficacy of a medicine may depend not only on its potency, but also on its facility of assimilation. We know, for example, that only three grains of Steel are contained in the whole quantity which is consumed of the Waters at Tunbridge Wells by a Patient who takes them during the usual period, and yet the strongest chalybeate medicines which can be administered do not produce the same operation. Nature, which is always admirable, and, to our feeble and limited understandings, often incomprehensible in her works, prepares these and other Mineral Waters with a skill which no art can attempt to rival, and shows that their sanative power does not result from the quantity, or from the direct agency of the constituent substances which chemical analysis discovers in them, but from other qualities which hitherto we have been unable to investigate. As the body derives nourishment from the quantity and quality of the food, which is not merely received into the stomach but is converted into chyle, so also the efficacy of medicinal substances, which are employed as alteratives or in the cure of chronical disorders, may arise from their being easily assimilated, and that property may

reasonably be expected to be found more in Vegetables than in Minerals. Even in acute disorders the repetition of a dose may be preferable to one more powerful in its immediate activity; and the principle is often illustrated in nature, that an effect is produced, not by the force but by the frequency with which the cause operates, and could not, in some cases, be produced otherwise with safety. The celebrated Dr. Tronchin, a disciple of Boerhaave, removed with ease and expedition, by administering every half hour a small quantity of coarse Sugar dissolved in tepid water, a visceral obstruction which had continued for many days, and which became very painful and alarming; but if a violent remedy had been employed great injury might have resulted to the patient. As the circulation of the blood and animal heat are gradually to be restored to a frozen limb, which would be destroyed if it were to be suddenly exposed to the warmth of a fire, so, in many cases, would it be imprudent to employ too violent or too immediate a counteraction to the evil which it is intended to remove. The gentle operation of some vegetable medicines, far from being an objection to their use, ought, in some cases, to be considered as a recommendation, and may peculiarly qualify them as alteratives, for which several of those Plants may have been designed which are not much distinguished by their sensible qualities.

Some vegetable substances are as powerful in their operation as any which are furnished by the Mineral Kingdom; but it would be a rash and unfounded conclusion, that those which appear to be feeble are, therefore, of no value. Some of them may have been intended by Providence for external use, and to be employed by the Surgeon more than by the Physician, as Vulneraries, as Styptics, as Emollients, or for other topical applications.

I am informed, that the most grievous malady with which human nature is afflicted—mental derangement—has been effectually cured in a short period of time by Fomentations and Cataplasms of the *GLECHOMA hederacea*, applied to the sutures of the head. Ray mentions the case of a violent and inveterate head-ache, which was entirely removed by drawing into the nostrils the juice of this Plant, upon which he bestows so high an encomium, that he says, “*Medicamentum hoc non satis potest laudari, si res ex usu estimarentur auro æquiparandum.*” This Plant, which is received into the Austrian Pharmacopoeia, but not into that of the Royal College of Physicians, was considered by Dr. Pitcairn to be of extreme efficacy in consumptive cases; and a Syrup of its Juice was recommended by Boerhaave, in the Hooping Cough, in Spitting of Blood, and in Hæmaturia. It appears, therefore, that its qualities should be fully examined, and should be subjected to a chemical analysis, and afterwards to actual trial.

With respect to those plants which, from botanical analogy, are considered to be medicinal, but which, from an imperfect knowledge of their properties, are not employed by the medical practitioner, nor even as popular remedies, their constituent principles can only be ascertained by Chemistry, which ought to commence the investigation, and to precede the trials that might subsequently be made. It would thus be found, whether and in what degree the principles which they contain are similar to those of other Plants, the qualities of which are already known, and consequently whether they might be supposed to produce the like effects; whether they seem to possess more or less activity than those which they resemble; whether they can be extracted with greater

facility or in larger quantities ; or whether, on the other hand, they are feeble and blended with other qualities which impair their power, and might be prejudicial to their success. If it were to be shown by analysis, that a Plant possesses, in a powerful degree, and in great abundance, any principle which seems to constitute the sanative quality of another, it might afford an useful substitute, and might be found to be a valuable addition to the *Materia Medica*. In the opposite case I would not, however, draw the contrary conclusion, or condemn, as undeserving of further notice, a Plant which appeared, by analysis, to be only slightly endowed with medicinal qualities, and to be composed principally of substances which, through our ignorance of their nature, are supposed to be insignificant. Chemical Analysis, though its examination may be very accurate and minute, and though it may be conducted with great skill, aided by the advantages of long experience, cannot ascertain, in every case, what are all the constituents of a vegetable substance, nor even in which of them resides its medical virtue. The art of Chemistry, in its present state, and notwithstanding the vast progress which it has made, does not seem to be sufficiently advanced for the purpose ; but it is of signal utility in directing our inquiries with a view to those practical trials, the advantages and importance of which cannot be too highly prized.

It affords me the utmost satisfaction to inform you, that another improvement has taken place, which I consider to be of far greater value than any other, and which may prove of inestimable service in promoting the views, in exalting the reputation, in extending the utility of this Society, and in attaining the benefits which it hopes to confer upon mankind. A Medical Committee has been

appointed, and is composed of persons who are highly distinguished in that profession, zealously desirous of advancing your designs, and well qualified for that purpose by their talents and acquirements. By their assistance, and under their auspices, those investigations may be conducted which are most interesting and important—those trials may be instituted which I have so ardently wished and so earnestly recommended—those questions, which would otherwise remain enveloped in obscurity and doubt, may be determined by the test of experience—and, as I see every reason to believe, those discoveries may be made which it is the object of this Society to pursue, and to the prosecution of which the strenuous exertions of its Members should be unceasingly directed. Allow me to congratulate you, most cordially, on the bright prospect which is now before you, and to express my confident expectation that the zeal and talents of the Medical Committee, and the patience with which it will, I have no doubt, persevere in its researches, will be crowned with that success which will be as honorable to its Members as it will prove beneficial to the world. In that success no one will take a deeper interest, or feel more sincere gratification, than the individual who has, through your kindness, been placed in the Chair of this Society; and who will greatly exult in all that can contribute to its welfare, which he has so much at heart, in all that can increase its fame, of which he is justly ambitious, and in all that can enlarge the sphere of its activity, which he is most anxious to extend, from the full conviction that he entertains of its extreme and unparalleled importance. To the success of this Society the assistance of the Medical Profession is essentially and indispensably requisite; and those Members of it who

form the Medical Committee, or who imitate their example, will eminently deserve, and will, I am sure, always receive the gratitude that is due to them, both from us and from the world, for exertions which are so meritorious in themselves, which are so valuable in their design, and which must, in any case, be so interesting in their results.

The Bye-Laws of this Society, which, as experience has shown, required considerable amendment, have been revised by me with great care and caution, and with an earnest desire which has, I trust, been in some degree successful to render them clear, concise, and comprehensive. In this undertaking I derived much assistance from the course adopted in another Society, the objects of which are like our own, of a practical nature, and the Bye-Laws of which have been recently simplified and improved, but could not, in all respects, be followed by ourselves. The amended Collection of our Bye-Laws having been circulated amongst the Members of the Council for their mature consideration, and having been corrected by them, I intend at an early period to submit them to this Society at a Special Meeting, and if they should be sanctioned by its approbation, to have them printed for distribution. The Meetings of the Society will, I trust, acquire much additional interest by a greater variety in our proceedings, which formerly were too much limited to reading the communications that were sent to us, but which will, in future, be greatly improved by the Lectures that will be occasionally delivered by our learned and excellent Professors. The inaugural Lecture of Dr. Clendinning, who is so eminently distinguished by his various acquirements, and who has rendered such important service to the Society by becoming the Professor of Toxic-

logy, was heard with great admiration by all who were present on that occasion, as well as by myself; and he had the kindness to publish it at the request of the Meeting. It united more curious and interesting facts than I ever remember to have found within the same compass, and I beg leave to offer my thanks to him, and my congratulations to this Society, on the benefits which cannot fail to be derived from his assistance. Our Meetings will also receive many advantages from the observations which may be made by any Member upon a communication that is read, or upon an object that is exhibited. From those advantages we ought not to be precluded by an erroneous interpretation of the present Bye-Laws, and we should rather promote than prevent those discussions that may be useful to the Society, and tend to convey additional information upon any subject to which our attention is directed. It was not, and is not, intended that we should become a sort of Debating Society, to discuss any speculative or doubtful questions; but we ought, on the other hand, to encourage oral as well as written communications, when they may advance the progress of those sciences which we cultivate, or when they may prove interesting or instructive to the Members.

His Majesty, who some years ago had the condescension of inscribing his Name as an Honorary Fellow, has been graciously pleased to confer upon us the honor of becoming, in the place of our late Sovereign, the Patron of this Society. The signal favor which he has thus deigned to show us must excite the utmost gratitude, and will, I trust, animate our exertions in deserving his august protection, and for that purpose, in pursuing with energy and perseverance the objects which we have in view, and which are intended to promote the welfare of mankind.

To our paternal Monarch, who is justly beloved by his subjects, and who has their happiness so much at heart, no tribute could be paid by us which would be so gratifying to him, or so honorable to this Society, as the benefits which its exertions might confer, not only on his own dominions, but also on all those countries to which civilization has yet extended.

After these subjects of congratulation I proceed to one which gives me deep regret, and that feeling will, I am convinced, be shared by every Member of this Society—I allude to the intention of Mr. H. Gibbs, who has, for the last three years, been one of the Secretaries, to resign that situation of which he has discharged the duties in a manner that did great honor to himself and received universal approbation. During that period, I have had the opportunity of witnessing, and I have witnessed with entire satisfaction, the extreme accuracy, the indefatigable activity, the zealous attachment to our interests that he constantly displayed in the office which he so worthily occupied, and which he intends to resign. That resignation will, like all his conduct, be very creditable to him, for it will, as stated in his Letter, arise from his persuasion that the increasing engagements of his own avocation would not allow him in future to devote to the business of this Society as much time and attention as he has hitherto done, and would wish to do as long as he held the office. Though we shall thus be unfortunately deprived of his services, the loss of which you will deplore in common with myself, I trust that we shall still receive the benefit of his assistance, which is very valuable, and of his advice, which has always been found judicious. In the name of this Society, as well as in my own, I beg leave to present to him the warm and cordial thanks which he has so well

deserved for his important services as Secretary, and to assure him of our unceasing gratitude and esteem. His Family has hereditary claims on our attachment, for without mentioning his late Brother, who had very distinguished talents, his Father, our present Treasurer, has, in the exercise of that office, shown so scrupulous a regard to his duties, has watched with so much care and anxiety over the interests which are confided to him, has established such regularity and method in the proceedings, and has laboured with so much zeal to promote our welfare, that his conduct cannot be sufficiently commended.

In noticing the communications with which we have been favoured, it is my duty first to offer the humble tribute of my praise to a most valuable Paper of Dr. Hancock, who does so much honor to this Society, and has so zealously and so successfully devoted himself to its pursuits. It relates to the *Juribali*, as it is called by the Natives, or *Febrifuge Bark Tree* of Pomeroon, which must not be confounded with the *ICICA altissima* of Aublet. The latter is often called by the same name, but the former is distinguished from it by the large size of the *Stipulæ*, and also by the scaliness of the *Cuticle*. The *Juribali* belongs to the 8th Class and 1st Order of Linnæus, and to the *Meliaceæ* of Jussieu, and is thought by Dr. Hancock, who gives a full botanical description of it, to be a distinct Genus. All the active principles of this Bark, which contains a Resin that is not one of them, are readily soluble in cold as well as in warm water, and are completely disengaged by a small addition of Acid, such as the Sulphuric, Muriatic, or Acetic. More than one-fourth in weight of this Bark is soluble in water, which dissolves only one-sixth, or perhaps not more than one-eighth part of the Peruvian Bark; but the usual dose of the former is

only one-half of the quantity which is administered of the latter. Although the *Juribali* is very potent, bitter, and astringent, in which qualities it is represented to be much superior to the Peruvian Bark, it is, like Rhubarb, cordial or purgative, according to the dose, and possesses the very important property, that it does not produce constipation, or affect the head, but it acts as a powerful diaphoretic, especially if taken warm, when it is the more efficacious, and its merits as a Febrifuge is certainly much enhanced. It will often be found to succeed, after the Peruvian Bark has failed, in curing an intermittent fever; it is much more useful than the other in those fevers which are of a malignant and typhoid nature; and it has also been employed with the most decided advantage in Agues, and in the dangerous remittent Fevers of the Tropics. The learned Author considers the *Juribali* to be more strictly a Febrifuge than the Peruvian Bark, which he thinks is not so useful “to drive away the Fever, as to “prevent its recurrence,” and the employment of the Peruvian Bark appears to him most equivocal in the ardent typhoid and remittent Fevers, in which there is the most danger, and in which it frequently produces a fatal metastasis upon the brain. He is also of opinion that the *Juribali* “may doubtless be regarded as a general “Tonic, and applicable, perhaps, in most cases, as a “substitute for the *Cinchona*.” The dose is stated by him to be a glassfull, every two or three hours, of an Infusion, which is made of one ounce of the *Juribali* in a quart of hot water. He adds, that it promises to be an useful remedy in Small Pox and Meazles, after due evacuants, and that it is applied externally, either in powder, or in a decoction, and is found to be very beneficial in foul and ill-conditioned ulcers. Dr. Hancock also

mentions another Tree that grows in the interior, and is called by the Natives *Caramata*, or *Ammari*, the Bark of which appears, from many trials, “to be equally safe and efficacious in those dangerous typhoid and remittent Fevers in which the *Cinchona* is useless or pernicious.”

An Infusion made from a combination of the *Caramata* and the *Juribali* in equal quantities, that is, of half an ounce of each, grossly powdered, in a quart of hot water, kept warm, and administered in a Wine Glassfull every two, four, or six hours, according to the urgency of the case, appeared to operate with uncommon efficacy. For this most important communication, we owe the greatest obligation to Dr. Hancock, whose merits and talents have been, on all occasions, so conspicuous; and I am very desirous of learning, whether those Trees are found in such abundance that their Barks might become an article of commerce, and also, whether their virtues would be preserved after a sea voyage, which, from the example of the Peruvian Bark, there does not seem much reason to doubt, but which will, I hope, be ascertained when he transmits to us, according to his kind promise, a sufficient supply of those Barks for making the requisite trials, and also some botanical specimens of the Trees. The departure of Dr. Hancock for those countries which he so long inhabited, must be much lamented by us; but wherever he may reside, he will carry with him our gratitude and respect, and our ardent wishes for his health and welfare.

We have to thank a very distinguished Member of the Council, Dr. Ryan, for an excellent Paper on the *Secale Cornutum*, or Ergot of Rye, which, in his opinion, does not induce, but only accelerate labour, and has little effect in the early period of gestation. It requires to be admin-

istered with caution, and ought not to be given in preternatural labour, and not till the parturient efforts have continued more than twenty-four hours. An Analysis has been made by Dr. Winkler of this very remarkable substance, but it is not yet determined in which of its properties the active principle resides, and this affords an additional illustration of what I before observed upon the insufficiency of Chemical Analysis, when applied to vegetable matter. I have, however, reason to hope, that more information will be obtained with respect to this substance, and that the nature of its constituent principles may be more fully understood when an Analysis has been made of it by Mr. Battley, who, from his great skill and experience, is so peculiarly qualified to conduct it.

Another proof of the medicinal virtues of many common vegetables is given by Mr. Brown, of Thun, in the Canton of Berne, who informed us that Milk was dispersed by the application of fresh Walnut Leaves. He observed, that when Leaves were brought to litter the Farm Yards, those of the Walnut were carefully separated from the others, as Goats who had eaten them were found to lose their Milk. That fact might have given the first hint for their application, and shows the great advantage of watching all the operations of nature, which in many instances may have led to the employment of popular remedies. Such remedies seem to deserve more attention than they have yet received, and are not hastily to be rejected, because we have not ascertained the *modus operandi*, which is not always apparent. If they have been long employed, which could hardly be the case, unless their effects had been supposed to be beneficial, a full investigation, and accurate trial of them may be considered not only proper and unobjectionable, but even highly requisite.

We have had the pleasure of receiving from Dr. William Hamilton, of Plymouth, some communications on the *BIGNONIA opthalmica*, and on the milky juice of the *CALOTROPIS gigantea*, which is employed with advantage in ulcers of the Palate and Fauces, and which, diluted with mucilage, is supposed to be useful in Chronic Ophthalmia, and also on the *FEUILLEA cordifolia*, or *Antidote Cocoon*, the seeds of which keep their virtues for two years, and are found to counteract the effects of Vegetable Poisons, whether taken internally, or admitted by wounds into the circulation. The experiment was tried with Dogs, which had taken the *CONIUM maculatum*, the *Nux Vomica*, and the *RHUS Toxicodendron*; and on Cats, which had been wounded with Arrows dipped in the Juice of the *HIPPOMANE Mancinella*, but which were cured by applying a Cataplasm of the Seeds.

This leads me again to bring under your notice the *MIKANIA Guaco*, which I mentioned to you on a former occasion, and which is said to act as a preservative against the bite of Rattle Snakes. It is stated, in a Spanish Paper, of Señor Quijano of Bogota, that it has, in some districts, "been used as a preservative from time "immemorial," and that there have, throughout Colombia, been repeated proofs of its efficacy. He mentions a place where, in the course of eleven years, 220 persons were bitten, but of whom only eight died, the others having been cured by the *Guaco*, mixed with Lemon Juice and Salt; and another place where it was supposed that above 200 persons had been bitten in fourteen years, and where, from the employment of this remedy, the accident was fatal only in a single case. He recommends that half an ounce should be taken fasting for two or three days successively;

and it is much to be regretted that he does not inform us what are the proportions of the Lemon Juice and Salt which are to be mixed with it, nor whether its efficacy is increased by that combination; or if not, for what other purpose it is recommended; and upon these points, as well as upon several others, I am anxious to receive full and satisfactory particulars from our Corresponding Members in that quarter of the world. We have also been favored with another communication upon this subject by Mr. Herman, who confirms the other accounts that had reached us of this remedy, the virtues of which, he says, were known to the Indians from the earliest ages. He states, that it acts as a preservative when taken in frequent doses; that it cures, in all instances, the poisonous bites of Vipers, and that it is, in such cases, universally employed by medical practitioners in the tropical regions of South America. He observes, that it is requisite to employ the leaves when fresh; that they are to be bruised and applied to the wound; and that the Juice may be given without any previous preparation, either pure or mixed with a small quantity of warm water. According to his information, the Juice operates as a powerful anodyne, and produces a copious perspiration. He adds, that it is an excellent vermifuge, as well as stomachic and tonic. A decoction of the plant is represented by Lieut. Hardy to be also "most efficacious in inveterate cases of Dysentery," in many places on the north Coast of Spanish America, where that disorder is so prevalent.

The *MIKANIA Guaco* is also considered to be useful in the cure of Hydrophobia, and in this respect it is peculiarly interesting, and might prove of the utmost importance in this Country, which has lately been so much alarmed by that disorder. My learned and revered Friend,

the President of the College of Physicians, has had the kindness, for which my grateful acknowledgments are due to him, of communicating to me a most valuable and excellent Paper upon this subject, which was written by Mr. Cæsar Hawkins, and which was read at a Meeting of the College. In that Paper, which appears, in my humble judgment, to deserve particular attention, the Author relates, with great clearness and detail, the case of a Dog, which he saw three weeks after it had been bitten, and three days after symptoms of illness had began to appear, and when they had “considerably increased.” A table spoonfull of the Juice was given to it three times the first day, and four times on the following day, and during that period, that is, during thirty-six hours, “a gradual improvement took place.” “The Bark, which is peculiar to rabid Dogs, was not heard after the first dose; the excessive irritability and restlessness under which the Dog laboured were completely subdued.” The eyes resumed much of their natural appearance and expression; the respiration became “quiet and easy;” the thirst “appeared to be diminished;”—it could again “drink with comparative facility;” the jaw was again “capable of being closed;” the tongue could again be “moved freely;” and the inclination for Food returned. On the following morning, however, all the symptoms had re-appeared with full force, and the Dog died two days afterwards, completely exhausted, and with a gradually increasing paralysis of the whole body. With respect to this trial, the Author observes, “as far, then, as a single experiment can be relied upon, and that too not commenced till the third day of the disease, a favorable report must certainly be given of the *Guaco* as a palliative in *Rabies Canina*,” and after stating that the

symptoms are mitigated also by the *ALISMA Plantago*, by the *SCUTELLARIA*, and especially by the *Belladonna*, he adds, " from neither of them had Mr. Youatt ever witnessed so decided and so long-continued an amendment " as from this new medicine." He also states, " as a " palliative, it was possessed of so much power in the Dog, " that I am anxious to learn its effects, if some more could " be obtained, at an earlier stage of the disorder; for " doubtless it is only at the commencement of the disease " that a cure can ever be expected; and probably it will " always be too late to subdue Hydrophobia, after those " spasms which characterize the disease in man have once " commenced." The circumstance to which the Author here adverts, may of itself explain the failure of the remedy in the case of the Dog, and we ought not to be discouraged from making further trials.

The failure which occurred, however, in a case of Hydrophobia in St. Thomas' Hospital, is still more remarkable. It appears that several ounces were given to the Patient at short intervals by injection, and by the mouth; that some moistened leaves were placed upon the Chest after the Cuticle had been removed by boiling water, and that a considerable quantity of the Extract of *Guaco* was administered. It seemed to calm and to diminish the frequency of the Paroxysms; but it was doubtful whether the effect was not occasioned by a Plaster of *Belladonna*, and partly by keeping the room more quiet; and even during the greatest calmness the sight of a glass of water produced Paroxysms. The Author remarks, with respect to this trial, " certainly the relief which could fairly be " attributed to the *Guaco* was much less than I saw in " another case from the employment of Prussic Acid, in " large doses, at short intervals;" and, as he also states,

much less than he “ was led to expect, from its influence “ upon the rabid Dog.” May I here be allowed to express a doubt whether the *Guaco* had not lost much of its potency by age, and by the effect of the voyage, or whether it may not be more serviceable in the *Rabies Canina* than in Hydrophobia; and in either case it would, in this Country, be far less useful than was hoped?

The Author states, that “ every remedy which has “ hitherto been known to mitigate the symptoms of Hydrophobia in Man, or of Rabies in Dogs; even the injection of warm water into the veins appears to act as a “ Sedative; and this appears to be the effect of the *Guaco* “ also in every animal to which I have given it.” This agrees with the account given by Mr. Herman, who mentions, that Serpents are thrown into a state of torpor by it, and that one of them was lulled by receiving on its head some saliva impregnated with it.

As to the uses of the *Guaco*, in preventing or in curing the bites of Serpents, Mr. Hawkins allows that he has not obtained “ a perfectly satisfactory result;” but he disproves, by a very decisive experiment, the supposition of Baron Humboldt, that the effect was produced by the aversion of that animal to the nauseous smell of the Plant. Mr. Hawkins thinks that the *Guaco* “ is utterly useless “ as a means of preventing Serpents from biting;” and this opinion, which differs so widely from that entertained respecting it in South America, adds strength to my suspicion, that the qualities and effects of the Juice, such as he received it, are very different from those which belong to it in that Country. Nor does it appear, from his statement of the case in St. Thomas’ Hospital, that the medicine acted, as it is said to do in that Country, by producing a copious perspiration.

He observes in regard to the *VERATRUM Sabadilla*, which Lieutenant Hardy had represented as an infallible cure for Hydrophobia, that four times the dose which is said to cure that disorder in Man, was given to a rabid Dog with very slight effect ; and, as he says, “ far inferior “ to the very decided influence produced upon the disease “ by the *Guaco*.” A doubt may arise here, whether the *VERATRUM Sabadilla* may not be more adapted to the human species, as the *Guaco* may be to the brute creation, and whether experiments ought not to be made with the former in incipient cases of Hydrophobia.

With respect to the *Guaco* itself, a preliminary pharmaceutical inquiry seems desirable to ascertain the proper mode of preserving its virtues, and of conveying it to this country. The Plant might, as Mr. Herman states, be supplied abundantly from Santa Fé, and might be cultivated, successfully, in our East and West India possessions ; and I learn from the President of the College of Physicians, for whom I entertain profound veneration as well as the sincerest friendship, that he has reared some Plants from Seeds which were received at the beginning of last year from Sir Robert Ker Porter, and it is found also in the Garden of the Horticultural Society. It is thought by Mr. Herman, that an Extract of the Juice ought to be sent, and I am inclined to concur in that opinion ; but I intend, when I shall have obtained satisfactory information upon this point, to procure a quantity of the Plant, or of the most eligible preparation of it, and to present it to the Society for distribution. In the mean time, the Council has desired that a quantity of the leaves of that Plant, which one of our Correspondents had the goodness to send us, may be given, with directions for their use, to any medical practitioner who may

be willing to make a trial of them in a case of Hydrophobia, and to report to us the result. I entreat you to devote particular attention to the employment of this and other vegetable remedies in that dreadful malady, and to submit their virtues to actual trials in such cases. If those trials should be favourable, the discovery would be of incalculable importance, and would, more than any other, establish our claims to that encouragement and support which the extreme utility and public advantage of our pursuits so much deserve.

When Dogs are bitten by one which is, or is supposed to be, in a rabid state, it is usual, and no doubt very proper and advisable, to destroy, or to confine them for the prevention of further mischief; but a very important discovery was made by means of one of them which was imprudently allowed to range at large, and which sought an Antidote by the same instinct that leads them to eat Grass as an Emetic. The fact was remarked by an accident that fortunately supplied the place of the accurate and attentive observation which would otherwise have been necessary, and which would have required great precautions to have guarded against danger. A remedy was thus discovered which is acknowledged to be very useful, and may, perhaps, when properly administered, prove to be efficacious. It appears from the statement of the Chevalier de Swinjin, and it is mentioned by the excellent Röver, in one of his instructive works, that a man in the government of Tula, in Russia, who had climbed upon a tree to escape a Dog which had for some days been in a rabid state, perceived the animal to stop when it reached a marshy spot at a short distance from the tree, and to scratch eagerly with its feet till it had grubbed up a root, which it voraciously devoured. He

remarked that the Dog, in half an hour afterwards, ceased to foam at the mouth, and that its eyes, which had been dull and inflamed, resumed their natural appearance. The Dog came to the tree, recognized the man who was upon it, and was found by him to be perfectly recovered. He went to the marshy spot, took a portion of the Root, and employed this remedy with the greatest success for twenty-five years. This Plant, which is entitled to a most careful examination and to further trials, is a very common aquatic weed, the *ALISMA Plantago*, of which there is an ample description and accurate drawing in the Second Volume of Curtis's *Flora Londinensis*, p. 78. Two or three doses were considered sufficient for a cure, and the Roots were given in powder; but the fresh Roots would, I think, be far preferable, and the Plant might be cultivated for the purpose of having a constant supply of them. May we not suppose that Dogs would be deficient in an instinct of that description if the *Rabies Canina* did not exist among those which appear to live in a state of nature; and were a malady arising altogether from domestic habits, from such unsuitable food, from such exposure to heat, or from such continuance of excessive exertion, as they would shun in their primitive condition?

I would also solicit your attention to the *GENTIANA Chirayita*, as we are informed upon medical authority, "that it has been proved by numerous trials to act as efficaciously in removing visceral obstruction, and in promoting the secretion of bile," as preparations of Mercury, that it will in such cases supersede them, and that it has from time immemorial been esteemed by the natives of Bengal, where diseases of the liver are so frequent and so violent with Europeans. We are told by Dr. W.

Ainslie, in his admirable Work on the *Materia Medica* of the East Indies, that it is “tonic, stomachic, and febrifuge;” and that the Decoction or Infusion of it, taken twice a day in the quantity of a small teacup-full, is found efficacious in combination with the *GUILANDINA bonducella*, in curing intermittent fevers. How far the latter may contribute to the cure of such fevers it is unnecessary for us to inquire; the object being to ascertain what is the action upon the liver of the *GEN-TIANA Chirayita*. Upon this point I am extremely desirous that we should have the advantage of learning the opinions and observations of Mr. Twining, of Calcutta, who deserves the warmest thanks of this Society for his excellent Paper on the Madar, and who would probably be able to inform us in what cases, and under what symptoms, and in what doses, it is administered; in what forms it is or ought to be exhibited, and what are the effects which it produces; and to furnish also those details which are derived from actual trial and experience, and of which the knowledge is requisite to a correct judgment of the subject. A safe and effectual substitute from the Vegetable Kingdom for those mercurial preparations, which are given in disorders of the liver, appears to me an object of primary importance, and well deserving the researches of this Society. The substitute, wherever it may be discovered, will be of the greatest advantage, and I am not without hopes that it may be found amongst the Plants which are indigenous to this Country.

It may be said that I overrate the value of those Plants, that I assume as an axiom, and without proof, that all of them are useful, and that I expect common weeds to be employed as specifics. We know, however, that

none of them were created without some purposes of utility, that a contrary supposition would be inconsistent with the order of Divine Providence, and that those which are not ornamental or fragrant, must be considered to be in some other mode subservient to the uses of mankind or of the animal creation. Those uses may be either for Food, for the processes required in Arts and Manufactures, or for Medicine; and it may not be unreasonable to conclude, that the latter may be intended when the two former do not apply. That conclusion would be drawn with respect to any particular Plant, either from botanical analogy, or from chemical analysis; and if both the one and the other were satisfactory, the Plant would be considered to be medicinal. As to those plants which are termed weeds, the very circumstances attending some of them, that they are propagated with great facility, like the *LEONTODON Taraxacum*, or that they are eradicated with great difficulty, like the *PLANTAGO*, seem to me to afford indications of their having been designed for very useful and valuable purposes. The former is already known to be an excellent remedy, and if it has not always been duly appreciated, this may perhaps have arisen partly from the season in which it was gathered, partly from the manner in which the Extract was prepared, and partly from inattention to another circumstance mentioned by Mr. Houlton, in a curious Paper, which was read at one of our Meetings, that its virtues are much impaired by severe cold, as was found by him to be the case after last winter.

In order to encourage your inquiries, and more especially, in order to invite your attention to some questions which appear eminently deserving of investigation,

the Council has determined to announce, at each Anniversary, to this Society, and to the Public, the subjects for which the Gold and Silver Medals will be awarded at the next ensuing Anniversary, to any persons, who, before the close of the year, communicate upon them Papers of sufficient merit. The question which the Council has this year selected for the Gold Medal, is one of extreme importance; it must, from many circumstances, excite the strongest interest, and if it were satisfactorily answered, the Author would acquire immortal honor, and would be justly entitled to the thanks, not only of his countrymen, but of all mankind. The question is "*what is the vegetable substance which could be employed with success in the cure of Hydrophobia?*" The inquiries that will be requisite for this subject, may, I hope, lead to a more perfect knowledge of the *ALISMA Plantago*, which, from the facts that I before stated, I am most anxious should be subjected to an accurate analysis, and to numerous practical trials. The Silver Medal will be given for the best Essay "*on the medicinal qualities of any indigenous Plant which is not yet sufficiently known, or on new uses and applications of any other indigenous Plant.*" It is required that these Essays should be sent in the English, French, German, or Latin Language, and those for which a Prize is not awarded, will, according to the wishes of their authors, be either restored to them, or submitted to the Council, in order that they may be read at the Meetings of the Society.

A wide field, which has not yet been adequately explored, is open to your researches, and in every step of your progress, you will be interested by the curiosity of the objects that surround you, and will be animated by the consideration, that your pursuits are not insignificant or

unimportant in their nature, and do not resemble those laborious and unprofitable inquiries of which the difficulty seems to constitute the only merit ; but that they are, on the contrary, of the utmost practical utility, and are directed to the benefit of mankind. May you in your progress prosper as you deserve ; and as I ardently desire, may you receive the approbation of all those who witness your laudable exertions ; and may you attain that success which is confidently anticipated from them, and which is due to industry and talents, when they are usefully employed. The success, which I fervently hope will crown your patience and perseverance—the discovery in the Vegetable Kingdom of an efficacious remedy for any of those disorders which afflict humanity, and which, hitherto, have been found difficult of cure, or have baffled the art of Medicine, would be attended with such a reward as no Society could bestow. It would confer upon its author an imperishable fame, far more honorable than that which is acquired by desolating conquests, extending to all civilized countries, and exciting the gratitude of future generations, as well as of the present age. And last, but not least, amongst these considerations, the author of such a discovery would carry with him to the grave the consolatory reflection, that he had eminently fulfilled his duty, and discharged the solemn obligation imposed upon him by Providence, which has placed us in this world as the common Children of one Parent, for the benefit and assistance of each other,

Medico-Botanical Society of London.

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